Work Orde Monday, May 10								For	F	ida	y.	Page 1
Revision ID:	D3910-3 Crosstube Lug		A	Accept					Setup	Start Stop	1 10011101 01	
Start Date: Required Date: Reference:	5/10/2010 5/13/2010	Start Qty: 50.0 Req'd Qty: 50.0			Cust Item Customer:	I D :						
Approvals:	Process Pla	n: MT	Date: 10-5-10	Tooling: SPC (Y/N):		ate:			Run	Start Stop		
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
Draw Nbr	Rev	ision Nbr										
D3910	В											
Bandsaw Jeaspa Bandsaw		Memo Cut to 1.	450" Long□	0.00 and	10/05/10		. •	50	<u></u>	<u></u>	-	
110 HAAS 1		Memo		0.00				_50		E		· <u> </u>
HAAS CNC vertical	machine #1	MACHII FOLIO R DWG RI DEBURI	EV:	DDWG SL	- Jank 10/os	113						

Dart Ae	rospace Lt	ia									£
W/O:				W	ORK ORDER CHAN	IGES				<u> </u>	
DATE	STEP		PR	OCEDURE CHA	ANGE	В	У	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
		ļ									
Part No	:		PAR #:	Fault Cate	egory:	NCR: `	res N	lo DQA		_ Date: _	
	Reso	lution:		Disposition	on:	QA: N/	C Clos	sed:		Date: _	
NCR:				WORK ORD	ER NON-CONFORM	MANCE (N	ICR)				
DATE	STEP	De	scription of NC Section A	Initial	Action Description	ection B	ign &	Verific Section		Approval Chief Eng	Approval QC Inspector
				Chief Eng	Chief Eng		Date				
								,			
		j									
NOTE: D	ate & initial al	l entries									L

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE



Monday, May 10, 2010 3:09:54 PM

Item ID:

D3910-3

Accept

Setup Start

Stop



Revision ID:

Item Name: **Start Date:**

Crosstube Lug

5/10/2010

Start Qty: 50.00

Req'd Qty: 50.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date: _____

Date:

Tooling:

0.00

0.00

SPC (Y/N):

Date:

Date:

Start Run



Sequence ID/ Work Center ID

Required Date: 5/13/2010

120

QC

Quality Control

Operation Description

QC2- Inspect parts off machine FAI/FAIB

Memo

Set Up/ **Run Hours**

Draw Number

Draw Rev.

Plan Code

Accept Qty

Reject Reject Qty

Stop

Insp. Number Stamp

130



Quality Control

QC8- Inspect parts - second check

Memo

0.00

50

140



Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

Memo

0.00

50 BR 10-5-13.

Dart Aerospace Ltd W/O: WORK ORDER CHANGES **Approval Approval** DATE **STEP** PROCEDURE CHANGE Ву Date Qtv Chief Eng / QC Inspector Prod Mar Part No: ______ PAR #: ____ Fault Category: _____ NCR: Yes No DQA: ____ Date: ____ _____ Disposition: _____ QA: N/C Closed: ____ Date: ____ Resolution WORK ORDER NON-CONFORMANCE (NCR) NCR: **Corrective Action** Section B Description of NC Verification Approval **Approval** DATE **STEP** Sign & **Action Description** Initial Section A Section C* Chief Ena QC Inspector Chief Eng. Chief Eng Date

Work Order ID 58549

Monday, May 10, 2010 3:09:54 PM



Page 3

Item ID:

D3910-3

Accept



Setup Start



Revision ID:

Item Name:

Crosstube Lug

Start Date: 5/10/2010 Required Date: 5/13/2010

Start Qty: 50.00

Req'd Qty: 50.00



Cust Item ID:

Customer:

Draw

Number

Reference:

Approvals:

Process Plan: Date: Tooling:

Date: _ ____

Draw

Rev.

Run

Start

Stop



Date: _____

SPC (Y/N):

Date:

Stop

Stamp

Sequence ID/ Work Center ID

150

Powdercoat

Powder Coating

Operation Description

M114207 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

START: 2:30pm Memo TCMP: 320°F

Fin: 3:00pu

Set Up/ **Run Hours**

10/05/13

Accept

Qty

Plan

Code

Reject

Qty

160

QC

Quality Control

QC3- Inspect Part Finish

0.00

0.00

50 BR 16-5-13,

Reject

Number

170

Packaging Packaging

Identify as per dwg & Stock Location:

Memo

Memo

0.00

(10/0/14(50)

Dart Aerospace Ltd W/O: **WORK ORDER CHANGES Approval** DATE **STEP Approval** PROCEDURE CHANGE By Date Qty Chief Eng / QC Inspector Prod Mgr Part No: ____ PAR #: ____ Fault Category: ____ NCR: Yes No DQA: ___ Date: ____ _____ Disposition: _____ QA: N/C Closed: ____ Date: ____ Resolution **WORK ORDER NON-CONFORMANCE (NCR)** NCR: **Corrective Action** Section B **Description of NC** Verification DATE **Approval STEP** Approval **Action Description** Sign & Initial Section A Section C Chief Eng QC Inspector Chief Eng Chief Eng Date

Work Order ID 58549

Monday. May 10, 2010 3:09:54 PM



Page 4

Item ID:

D3910-3

Accept



Setup Start

Stop



Revision ID:

Item Name:

Crosstube Lug

Start Date:

Required Date: 5/13/2010

5/10/2010

Start Oty: 50.00

Reg'd Otv: 50.00

Operation

Description



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date: _____

Tooling:

SPC (Y/N):

Date: Date:

Run

Stop

Start



Sequence ID/

Work Center ID

180

Memo

QC21- Final Inspection - Work Order Release

Date:

0.00

Set Up/

Run Hours

Draw Number Draw Rev.

Plan Code Qty

Reject Accept Qty

Reject Number

Insp.

Stamp

Quality Control

0.00

Dart Ae	rospace Ltd	d						g _{in}
W/O:			WO	RK ORDER CHANGE	S			· .
DATE	STEP	PF	ROCEDURE CHAI	NGE	Ву	Date Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspect
Part No):	PAR #:	Fault Categ	Jory:	NCR: Yes	No DQA:	Date: _	
	Resol	ution	Disposition	ı:	QA: N/C Cld	sed:	Date: _	
NCR:			WORK ORDE	R NON-CONFORMAL	NCE (NCR)	: -	
DATE	STEP	Description of NC		Corrective Action Section		Verification	Approval	Approva
DAIL	JILI	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspect
		ł						
						ļ		
				1,000,000				
-								

Picklist Print

Monday, May 10, 2010 3:09:53 PM

Work Order ID: 58549

Parent Item: Parent Item Name:

D3910-3

Comments:

Crosstube Lug

IPP REV:A NEW ISSUE 09-11-25 JLM VERIFIED BY:DD

REV:B AS PER REV B 10-03-23 JLM VERIFIED BY:DD

Start Date: 5/10/2010

Required Date: 5/13/2010

Start Qty: 50.00

Required Qty: 50.00

Component Item ID/ Item Name

D2423

Replacement Mfg/ Item ID Purch Manufactured

Primary Bin Item Location No

Last Location

Route Seq ID 100

IPP

Measure f

Unit of Hand 484.5637

Qty on Qty per Kit 0.13

Qty

Date Issued Issued

Status

Page 1

Location

MAT06

43722 45800 Loc Qty

484.5636895 180

304.563689

Loc Code

6.84211 and 10/0 s/10

Lug Extrusion

Dart Ae	rospace Ltd							•
W/O:			WO	RK ORDER CHANG	ES			
DATE	STEP	PR	OCEDURE CHAI	NGE	Ву	Date Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspecto
Part No				gory:				
	Resolut	tion	Disposition	n:	_ QA: N/C CI	osed:	Date: _	
NCR:			WORK ORDE	ER NON-CONFORMA	ANCE (NCF	R)	•	
DATE	OTED	Lescription of NC		Corrective Action Secti	on B	Verification	Approval	Approva
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	Section C	Approval Chief Eng	QC Inspecto

DART AEROSPACE LTD	Work Order:	58549
Description: Crosstube Lug	Part Number:	D3910-3
Inspection Dwg: D3910 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing	Toloroneo	Actual	Accept	Reject	Method of	Comments
Dimension	Tolerance	Dimension	Accept	Reject	Inspection	Comments
4.45	+/-0.030	4.451				
1.38	+/-0.030	1.378				
R0.080	+/-0.020	5.060				
0.27 Ref	+/-0.030	.286				
0.31	+/-0.030	-300			·	
0.735 Ref	+/-0.010	-740				
R1.20	+/-0.030	//84				
3.700	+/-0.010	3.700				
0.375	+/-0.010	.374				
0.625	+/-0.010	.624				
0.375	+/-0.010	,375				
R0.34	+/-0.030	-340	/,			
Ø0.257	+0.006/-0.001	.258				
0.100 x 45°	+/-0.010 x +/-0.5°	- //0	/			
1.41 Ref	+/-0.030	1.403				

Measured by:	14	Audited by:	H.A.		Preliminary Approval:	
Date:	10/05/12	Date:	10/05/13	3	Date:	

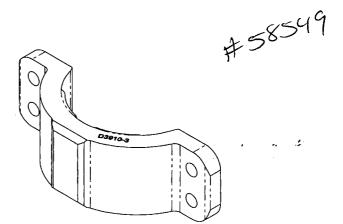
Rev	Date	Change	Revised by	Δ	Approved
Α	10.04.20	New Issue	KJ 🤻	*	\mathcal{M}
				T^{-}	

Da	ırt	Ae	ro	sp	ac	e	Ltd

N/O:			M	WORK ORDER CHANGES							
DATE	STEP	PRO	OCEDURE CH	IANGE		Ву	Date	ety	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
										C.	
Part No	:	PAR #:	Fault Ca	tegory:	NCR	: Yes N	o DQA:		_ Date: _		
	R	esolution:	Disposit	_ Disposition: QA: N/C Close			sed:	Date:			
NCR:			WORK OR	DER NON-CONFORM	ANCE	(NCR)					
DATE	STEP	Description of NC Section A	Corrective Action S Initial Action Description Chief Eng Chief Eng		tion B	on B Sign & Date		on C	Approval Chief Eng	Approval QC Inspector	
			9								
					Processing and a second						
**************************************				9							
					-						
	ļ										
									•		
NOTE: D											

03910-1

D3910-1 X-TUBE LUG



2

1

D

С

D3910-3 X-TUBE LUG

3

NOTES:

1) MATERIAL: MAKE FROM D2423 EXTRUSION
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: ENGRAVE PART NUMBER TO A DEPTH OF 0.010 ± 0.005 IN THIS LOCATION WITH A TOOL TIP RADIUS
0 TO 0.015 + 0.005

OF 0.015 ± 0.005 7) WEIGHT -1: 0.32 lbs -3: 0.25 lbs

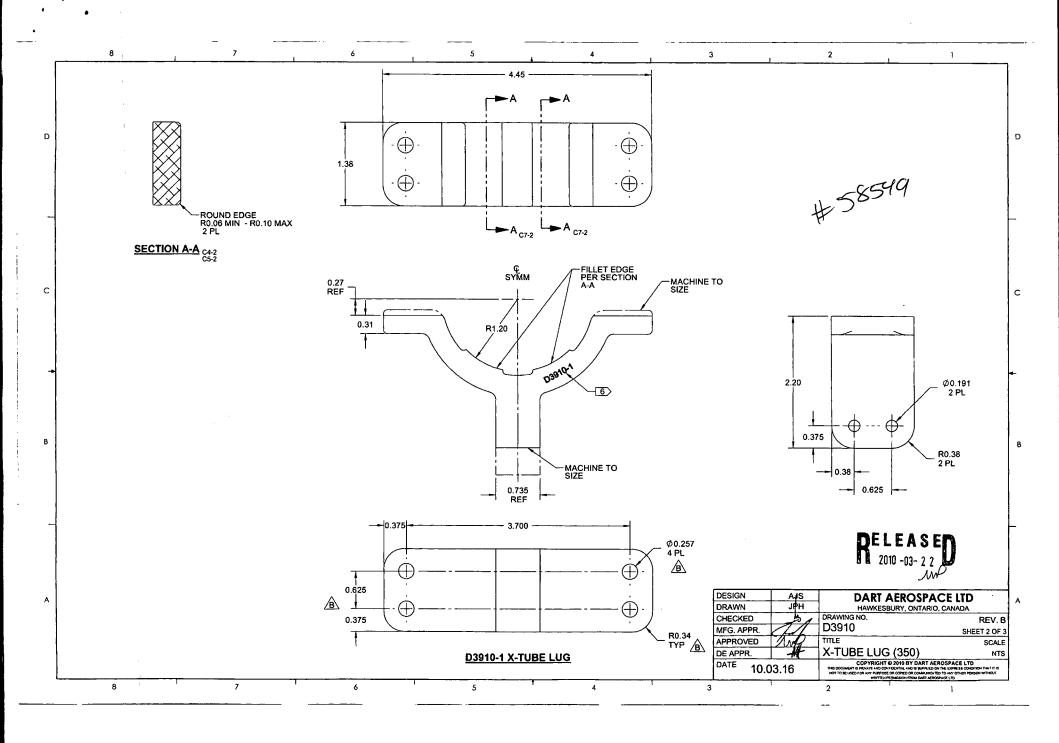
Ø0.257 HOLES: 4 PL WAS 2 PL (A3-2) & (A3-3); R0.34 FILLET WAS R0.50 (A3-2) & (A3-3). REASON: SEE TR-0350-807-2 10.03.16 Α NEW ISSUE JPH 10.03.04 REV. DESCRIPTION BY DATE DESIGN AJS **DART AEROSPACE LTD** DRAWN HAWKESBURY, ONTARIO, CANADA DRAWING NO. CHECKED REV. B D3910 MFG. APPR. SHEET 1 OF 3 APPROVED TITLE SCALE X-TUBE LUG (350) DE APPR. NTS COPYRIGHT © 2010 BY DART AEROSPACE LTD
THIS DOCUMENT IS PROVIDED AND THE SERVICE OF THE EXPRESS CONCINCTION OF USED FOR MAIN PARKET OR CODE OF DOCUMENTATION OF THE PERSON PROVIDED TARROPHICE LTD. DATE 10.03.16

5

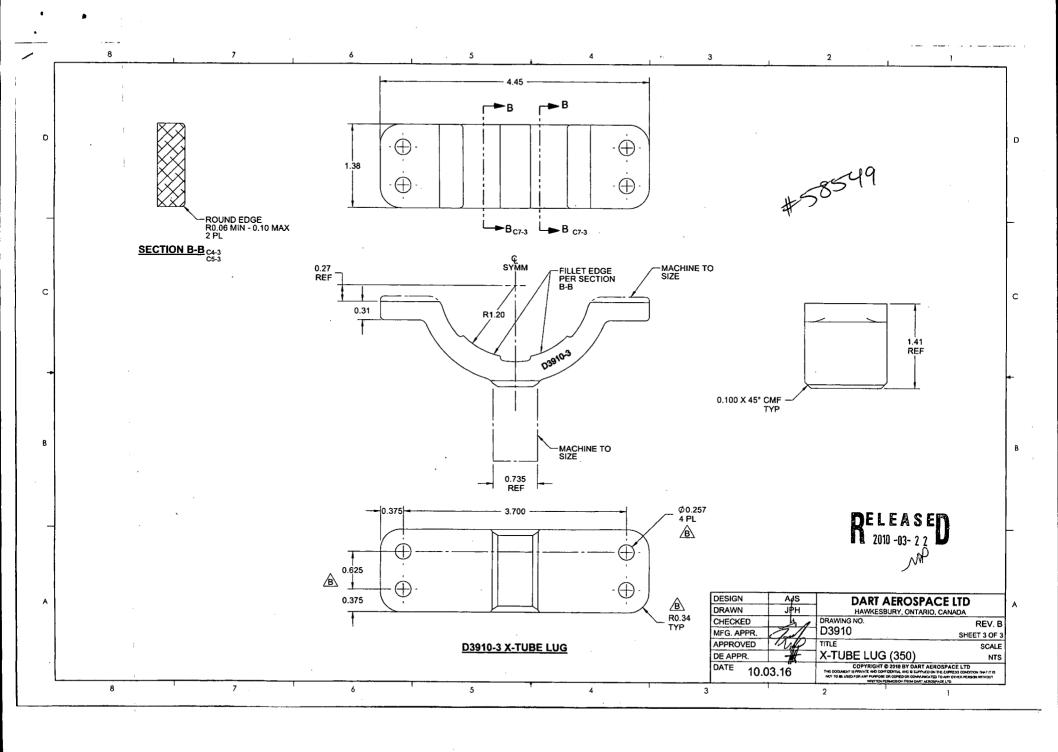
С

Part No: PAR #: Fault Category: NCR: Yes No DQA: Date: Resolution Disposition: QA: N/C Closed: Date: NCR: WORK ORDER NON-CONFORMANCE (NCR) DATE STEP Description of NC Description Section B Verification Approval Appro	Dart Ae	rospace	Lla							•					
Part No: PAR #: Fault Category: NCR: Yes No DQA: Date: Resolution Disposition: QA: N/C Closed: Date: NCR: WORK ORDER NON-CONFORMANCE (NCR) STEP Description of NC Section A Chief Eng C	W/O:														
Resolution Disposition: QA: N/C Closed: Date: NCR: WORK ORDER NON-CONFORMANCE (NCR) DATE STEP Description of NC Section A Approval Chief Eng Chi	DATE	STEP		PR	OCEDURE CHA	ANGE	Ву	Date Qty	Chief Eng /	Approva QC Inspecto					
Resolution Disposition: QA: N/C Closed: Date: NCR: WORK ORDER NON-CONFORMANCE (NCR) DATE STEP Description of NC Section A Approval Chief Eng Chi		ls.													
Resolution Disposition: QA: N/C Closed: Date: NCR: WORK ORDER NON-CONFORMANCE (NCR) DATE STEP Cescription of NC Section A Chief Eng Ch															
Resolution Disposition: QA: N/C Closed: Date: NCR: WORK ORDER NON-CONFORMANCE (NCR) DATE STEP Cescription of NC Section A Chief Eng Ch															
Resolution Disposition: QA: N/C Closed: Date: NCR: WORK ORDER NON-CONFORMANCE (NCR) Thitial Action Description Chief Eng Ch	Part No	:		PAR #·	Fault Cate	agory:	NCP: Voc	No. DOA:	Data						
NCR: WORK ORDER NON-CONFORMANCE (NCR) DATE STEP Description of NC Section A Action Description Chief Eng Chie															
DATE STEP Lescription of No Section A Initial Chief Eng	NCR:														
Section A Initial Chief Eng Chief Eng Section C Chief Eng QC Inspect	DATE	STED		escription of NC				Verification	Approval	Approva					
NOTE: Date & initial all entries	DAIL	JILF		Section A						QC Inspecto					
NOTE: Date & initial all entries															
NOTE: Date & initial all entries	4 1		i												
NOTE: Date & initial all entries															
NOTE: Date & initial all entries															
NOTE: Date & initial all entries															
NOTE: Date & initial all entries															
NOTE: Date & initial all entries															
NOTE: Date & initial all entries															
	NOTE: D	ate & initia	al all entries												

H:\fFORMS\Quality Assurance\apprived QA\NCRWO RevE



Dart Ae	rospace Lt	d							•
W/O:			WO	RK ORDER CHANG	ES			· · · · · · · · · · · · · · · · · · ·	
DATE	STEP	PR	OCEDURE CHAI	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspecto
•									
					7.7.				
Part No	:	PAR #:	Fault Cate	jory:	NCR: Y	es No D o	QA:	Date: _	,
	Reso	lution:	Disposition	:	_ QA: N/C	Closed: _		Date: _	
NCR:			WORK ORDE	R NON-CONFORMA	NCE (N	CR)			
DATE	OTED	Description of NC	ion of NC Correctiv		on B	Veri	fication	Approval Chief Eng	Annrovo
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	ption Sign 8 Date		ction C		Approval QC Inspecto
				•					
				·					
					·.				



Dart Aerospace Ltd W/O: WORK ORDER CHANGES **Approval Approval** DATE STEP PROCEDURE CHANGE By Date Qtv Chief Eng / Prod Mgr QC Inspector Part No: PAR #: ____ Fault Category: ____ NCR: Yes No DQA: ___ Date: ___ Resolution Disposition: _____ QA: N/C Closed: ____ Date: ____ WORK ORDER NON-CONFORMANCE (NCR) NCR: **Corrective Action** Section B **Description of NC** Verification **Approval** Approval DATE **STEP** Initial **Action Description** Sign & Section A Section C Chief Eng QC Inspector Chief Eng Chief Eng Date